

FIGURE 1

| Probability Range | Total # Tested | # Pass | % Pass | # Fail | % Fail | # inflammation | % Pass w/o/inflammation | % Pass n * |
|-------------------|----------------|--------|--------|--------|--------|----------------|-------------------------|------------|
| <40.5%            | 10             | 0      | 0      | 10     | 100    |                |                         |            |
| 40.5-50%          | 16             | 10     | 62.5   | 6      | 37.5   |                |                         |            |
| 50-60%            | 36             | 25     | 69.4   | 11     | 30.6   | 9              |                         | 94.4       |
| 60-70%            | 41             | 27     | 66     | 14     | 34     | 12             |                         | 95         |
| 70-75%            | 22             | 16     | 72.7   | 6      | 27.3   | 6              |                         | 100        |
| 75-80%            | 19             | 14     | 73.7   | 5      | 26.3   | 5              |                         | 100        |
| >80%              | 60             | 53     | 88.3   | 7      | 11.7   | 7              |                         | 100        |
| Grand total       | 204            | 145    |        | 59     |        |                |                         |            |

FIGURE 2

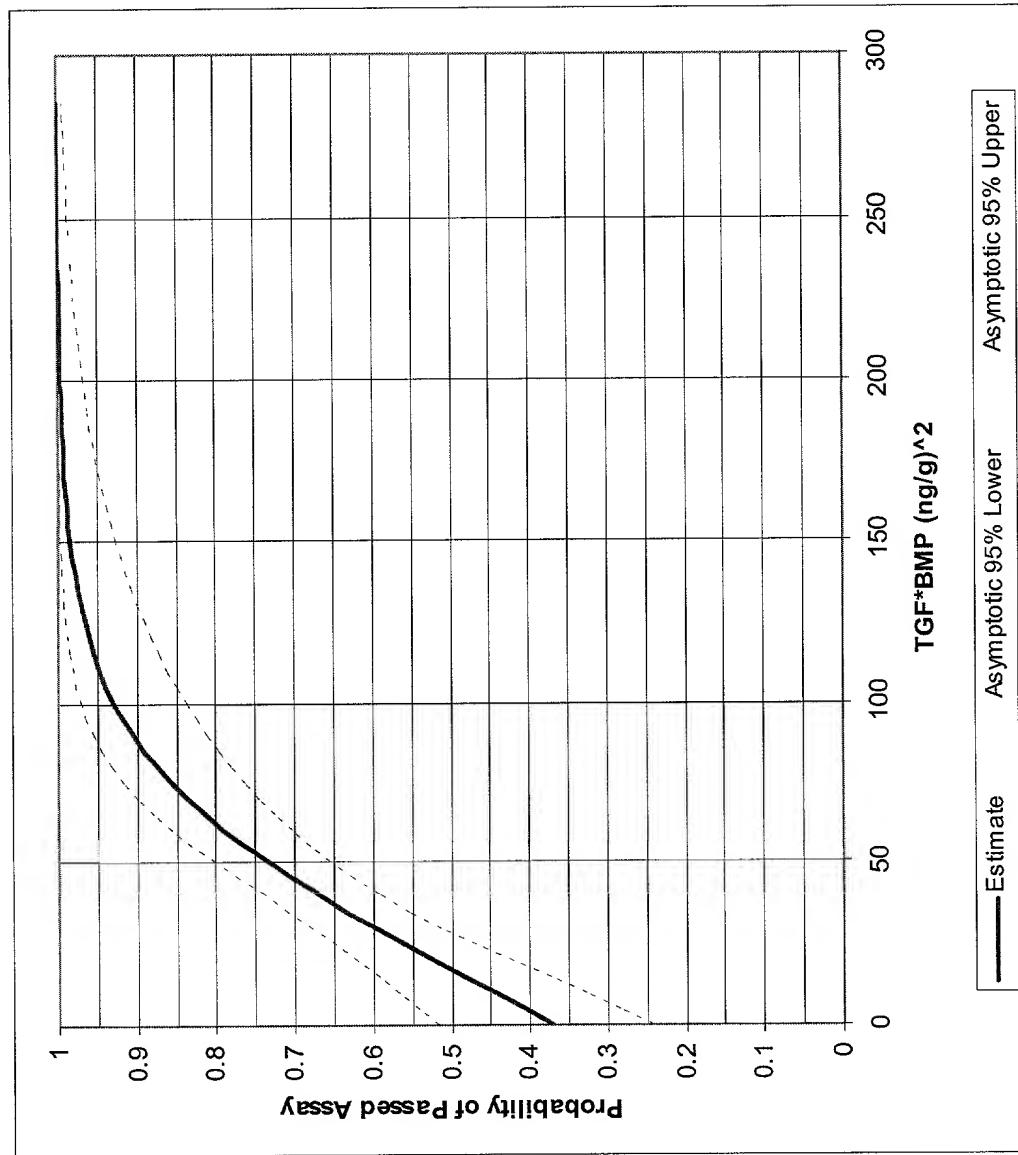


FIGURE 3

Observed and Logistic Estimate  
of the Percent Assays that Pass Osteoinductivity

vs

The Measured  $BMP^*TGF-b1$  (ng/g)<sup>2</sup>

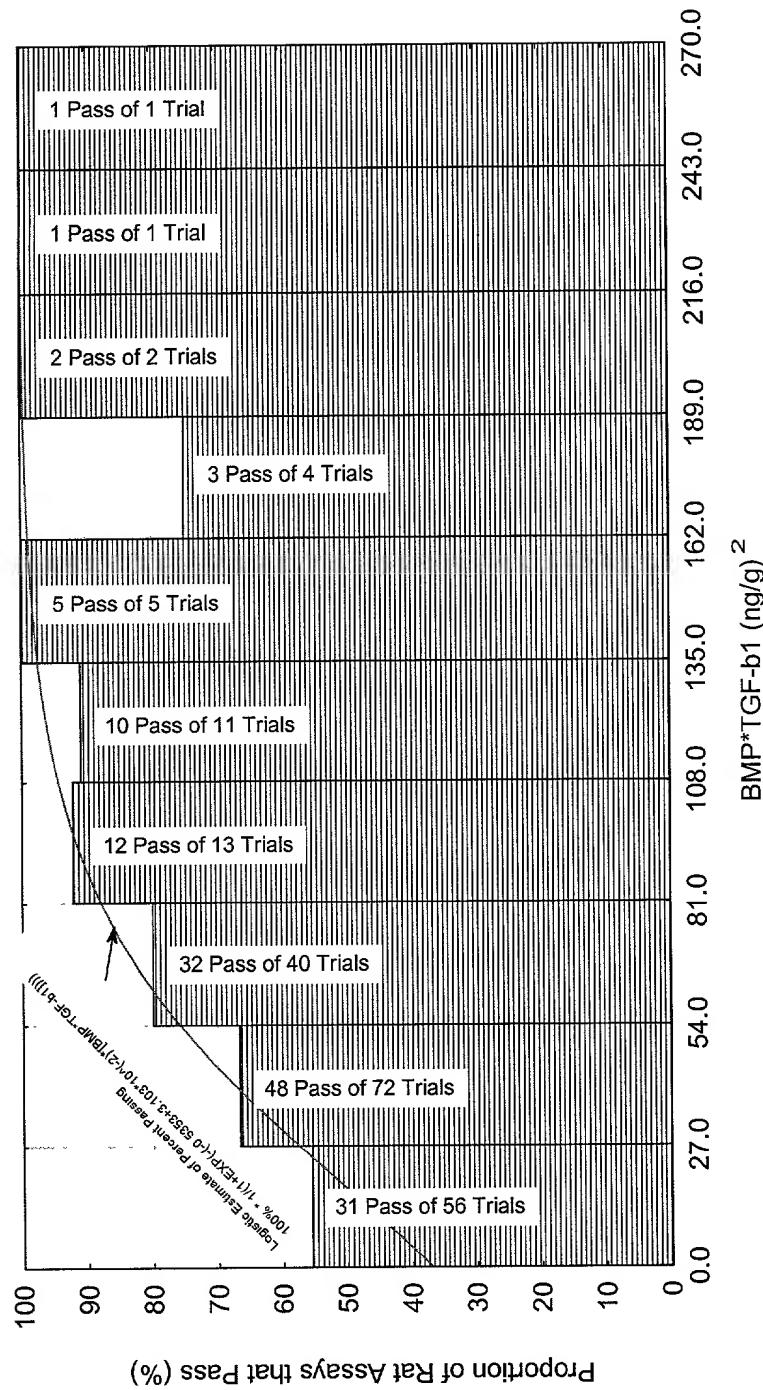


FIGURE 4

Distribution : BINOMIAL

Link function: LOGIT

| Effect    | Level of | Column | Estimate  | Standard Error | Wald Stat. | p        |
|-----------|----------|--------|-----------|----------------|------------|----------|
| Intercept | 1        |        | -0.535299 | 0.306756       | 3.045135   | 0.080979 |
| BMP*TGF   | 2        |        | 3.1E-08   | 6.97E-09       | 19.82913   | 8.47E-06 |
| Scale     |          |        | 1         | 0              |            |          |

FIGURE 5

FIGURE 6

|          | mean     | st. dev. | minimum  | maximum  |
|----------|----------|----------|----------|----------|
| BMP      | 538.5    | 384.73   | 15.6000  | 2179.5   |
| TGF      | 102666.3 | 50908.00 | 886.2000 | 417608.0 |
| RATASSAY | .7       | .46      | 0.0000   | 1.0      |

|                      | Const.B0 | BMP      | TGF      |
|----------------------|----------|----------|----------|
| Estimate             | 1.36196  | -.00246  | .00001   |
| Standard Error       | .51127   | .00066   | .00000   |
| t(190)               | 2.66390  | -3.73437 | -2.71528 |
| p-level              | .00839   | .00025   | .00723   |
| -95%CL               | 3.5347   | -.00376  | -.00002  |
| +95%CL               | 2.37045  | -.00116  | -.00000  |
| Wald's Chi-square    | 7.09634  | 13.94552 | 7.37275  |
| p-level              | .00773   | .00019   | .00663   |
| Odds ratio (unit ch) | 3.90383  | .99754   | .99999   |
| -95%CL               | 1.42400  | .99624   | .99998   |
| +95%CL               | 10.70216 | .99884   | 1.00000  |
| Odds ratio (range)   |          | .00486   | .01388   |
| -95%CL               |          | .00029   | .00062   |
| +95%CL               |          | .08099   | .31036   |

FIGURE 7

Model: Logistic regression (logit)  
 $z = \exp(-1.36196 + (0.002462)x + (0.0000103)y) / (1 + \exp(-1.36196 + (0.002462)x + (0.0000103)y))$

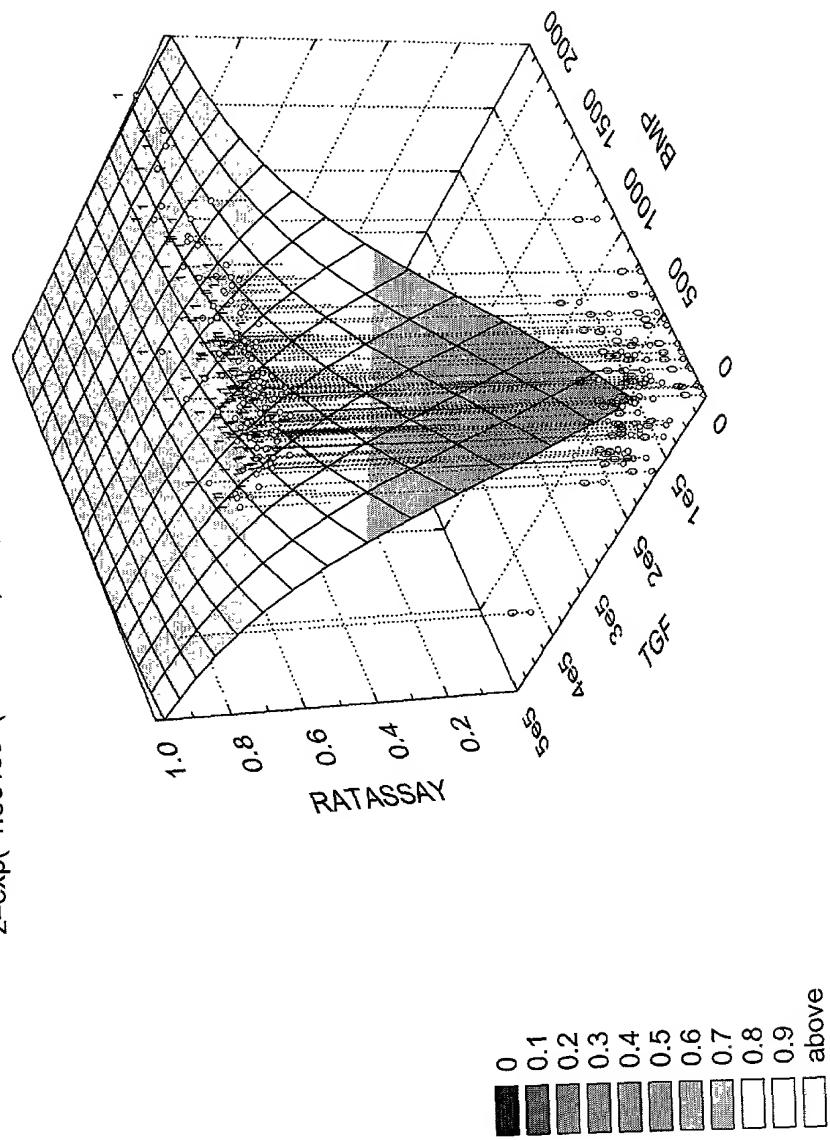


FIGURE 8

Model: Logistic regression (logit)  
 $z = \exp(-1.36196 + (0.002462)x + (0.0000103)y) / (1 + \exp(-1.36196 + (0.002462)x + (0.0000103)y))$

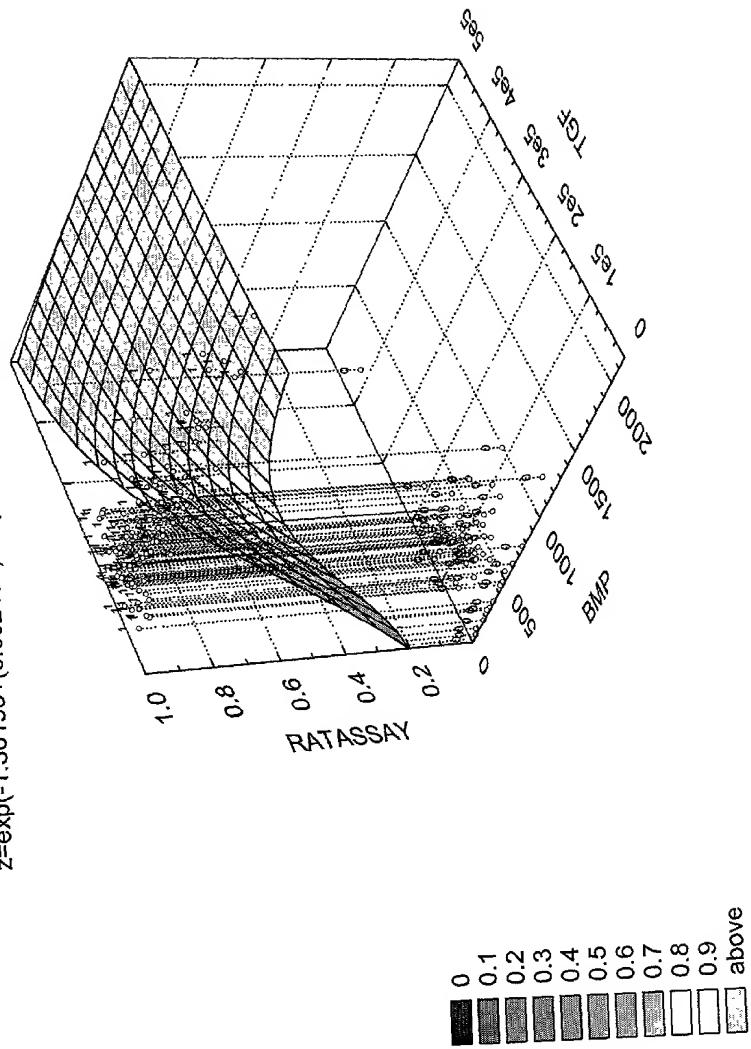


Figure 9

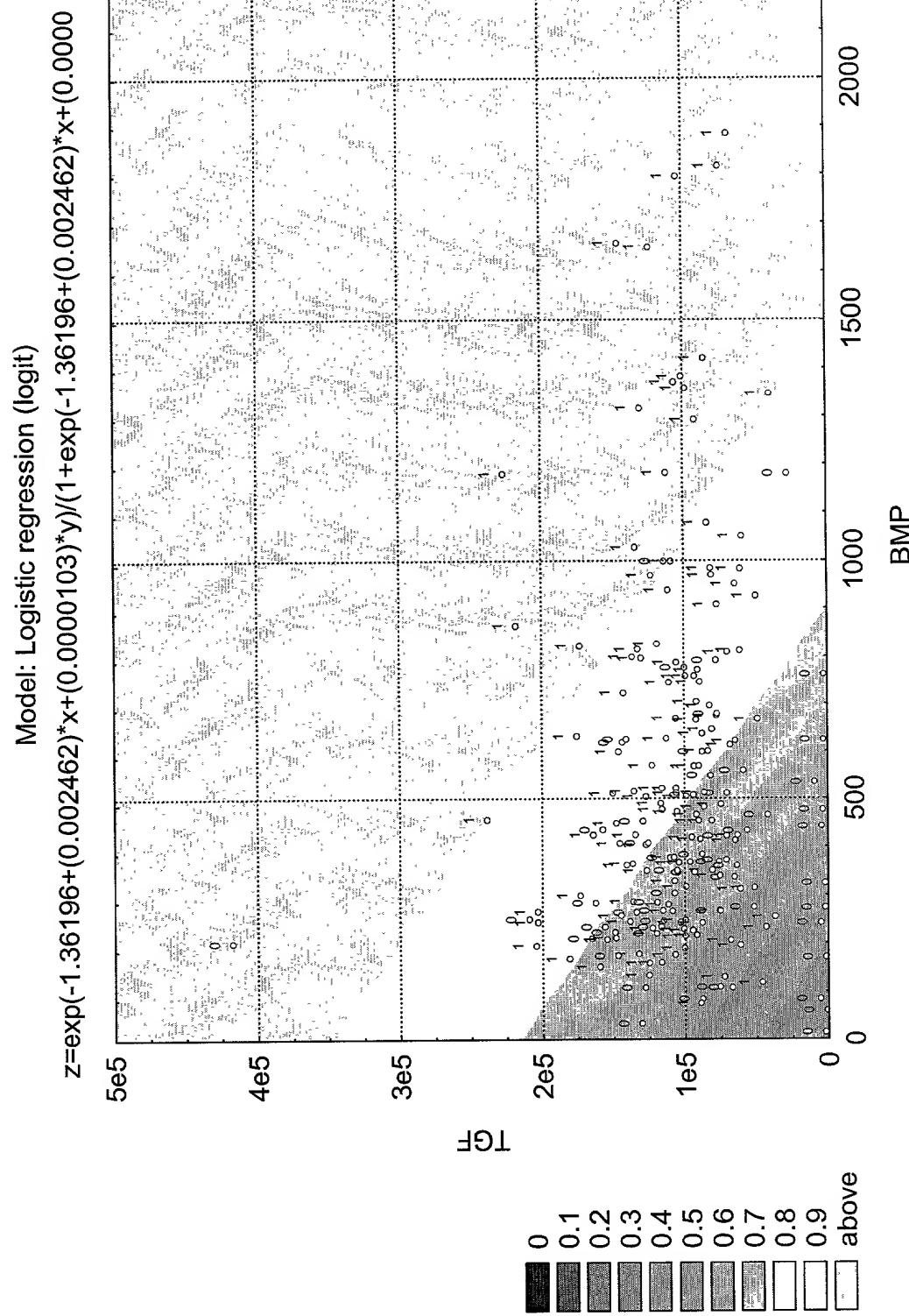


FIGURE 10

| Predictor | Coef       | StDev      | Z     | P     | Odds Ratio | 95% CI Lower | 95% CI Upper |
|-----------|------------|------------|-------|-------|------------|--------------|--------------|
| Constant  | -0.3123    | 0.6476     | -0.48 | 0.630 |            |              |              |
| BMP       | -0.000584  | 0.001451   | -0.40 | 0.688 | 1.00       | 1.00         | 1.00         |
| TGF       | -2.240E-06 | 6.3731E-06 | -0.35 | 0.725 | 1.00       | 1.00         | 1.00         |
| BMP*TGF   | 3.7291E-08 | 1.7152E-08 | 2.17  | 0.030 | 1.00       | 1.00         | 1.00         |

Log-Likelihood = -102.711  
 Test that all slopes are zero: G = 32.206, DF = 3, P-Value = 0.000

FIGURE 11

3D Contour Plot (Elisa,STA 10v\*194c)  
 $z=1/(1+\exp(-0.3123 - 0.0005835*x - 2.240E-06*y + 3.7290E-08*x*y))$

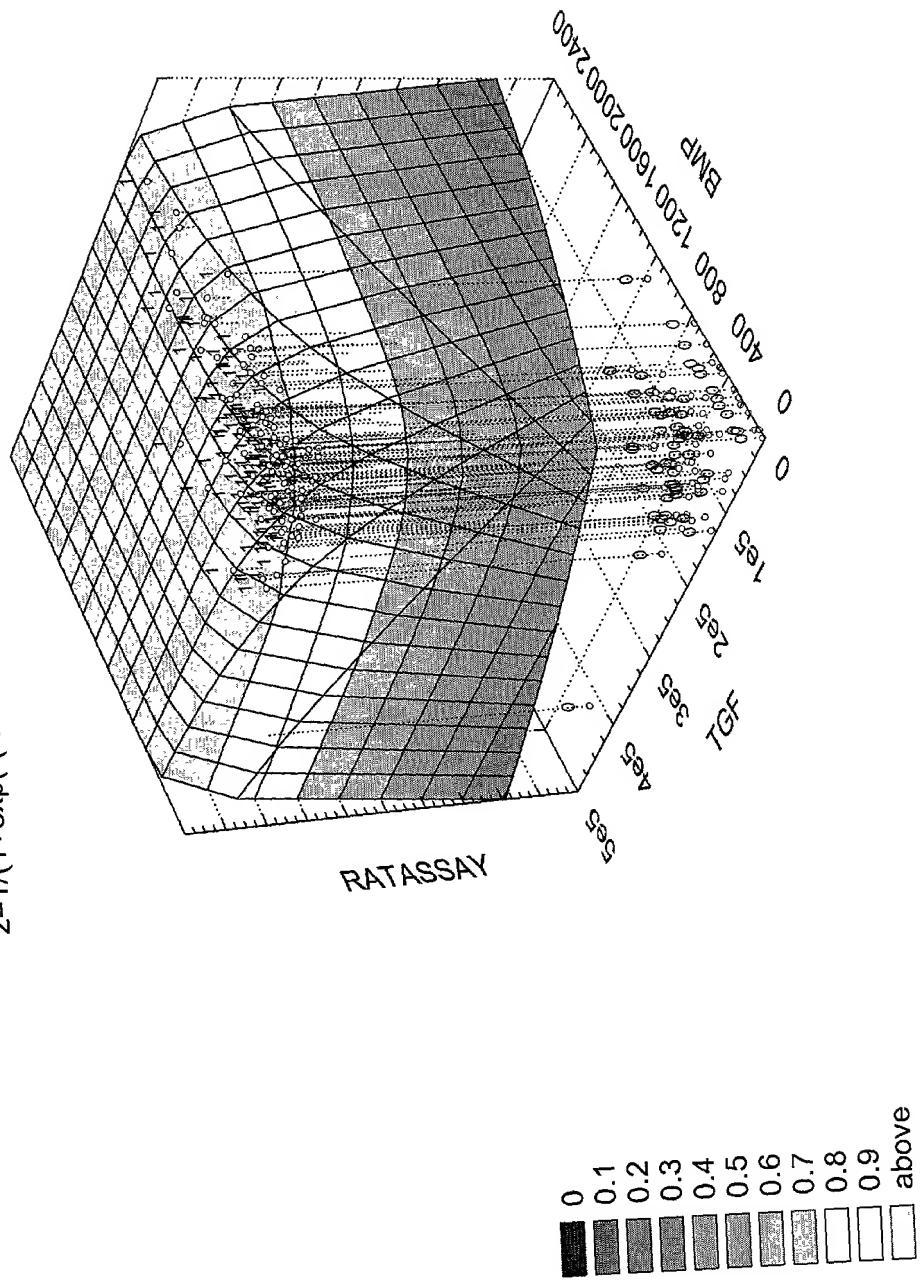


FIGURE 12

3D Contour Plot (Elisa.STA 10v\*194c)  

$$z = 1/(1 + \exp(-(-0.3123 - 0.0005835*x - 2.240E-06*y + 3.7290E-08*x^2*y)))$$

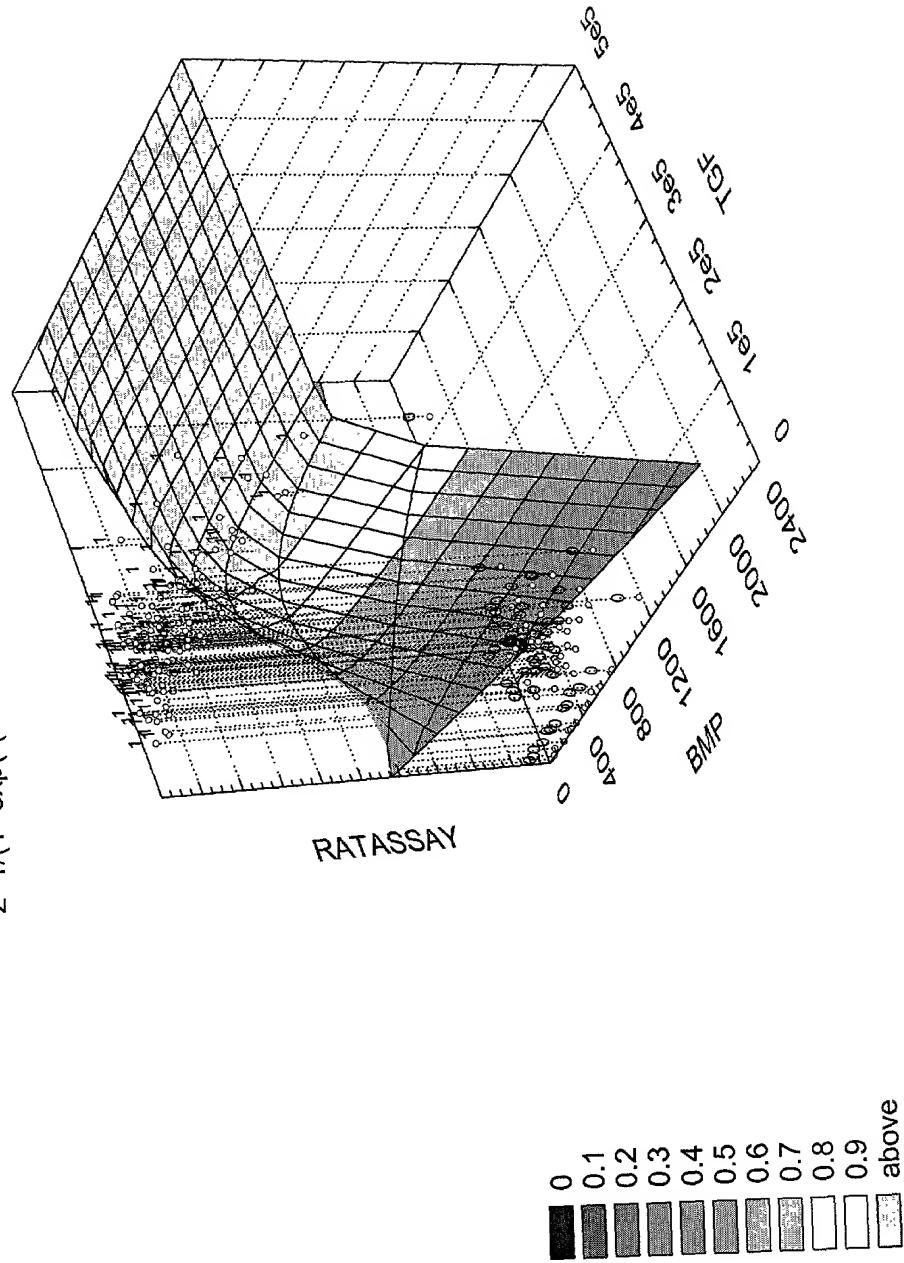
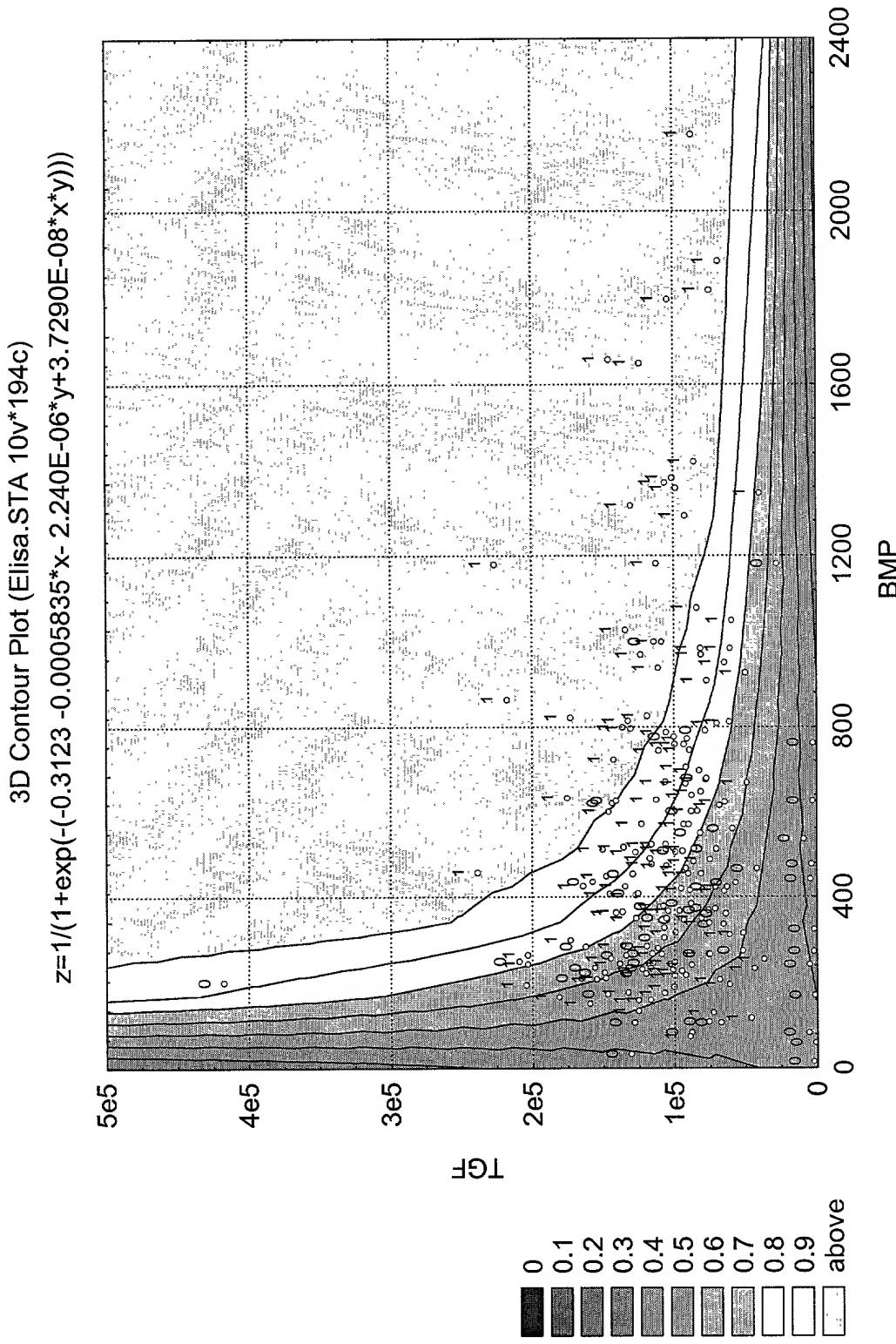


FIGURE 13

FIGURE 14



RATASSAY - Parameter estimates (elisa.sta)

Distribution : BINOMIAL

Link function: LOGIT

Level of

Effect

Column

Estimate

Standard

Wald

|                |   |           | Estimate | Standard Error | Wald Stat. | P |
|----------------|---|-----------|----------|----------------|------------|---|
| Interc         | 1 | -0.535299 | 0.306756 | 3.045135       | 0.080979   |   |
| BMP*TGF        | 2 | 3.1E-08   | 6.97E-09 | 19.82913       | 8.47E-06   |   |
| Scale          |   | 1         | 0        |                |            |   |
| Statistica '99 |   |           |          |                |            |   |

FIGURE 15

3D Contour Plot (Elisa, STA 10v\*194c)  
 $Z = \exp(-0.535308 + (3.10276e-8)x^*y) / (1 + \exp(-0.535308 + (3.10276e-8)x^*y))$

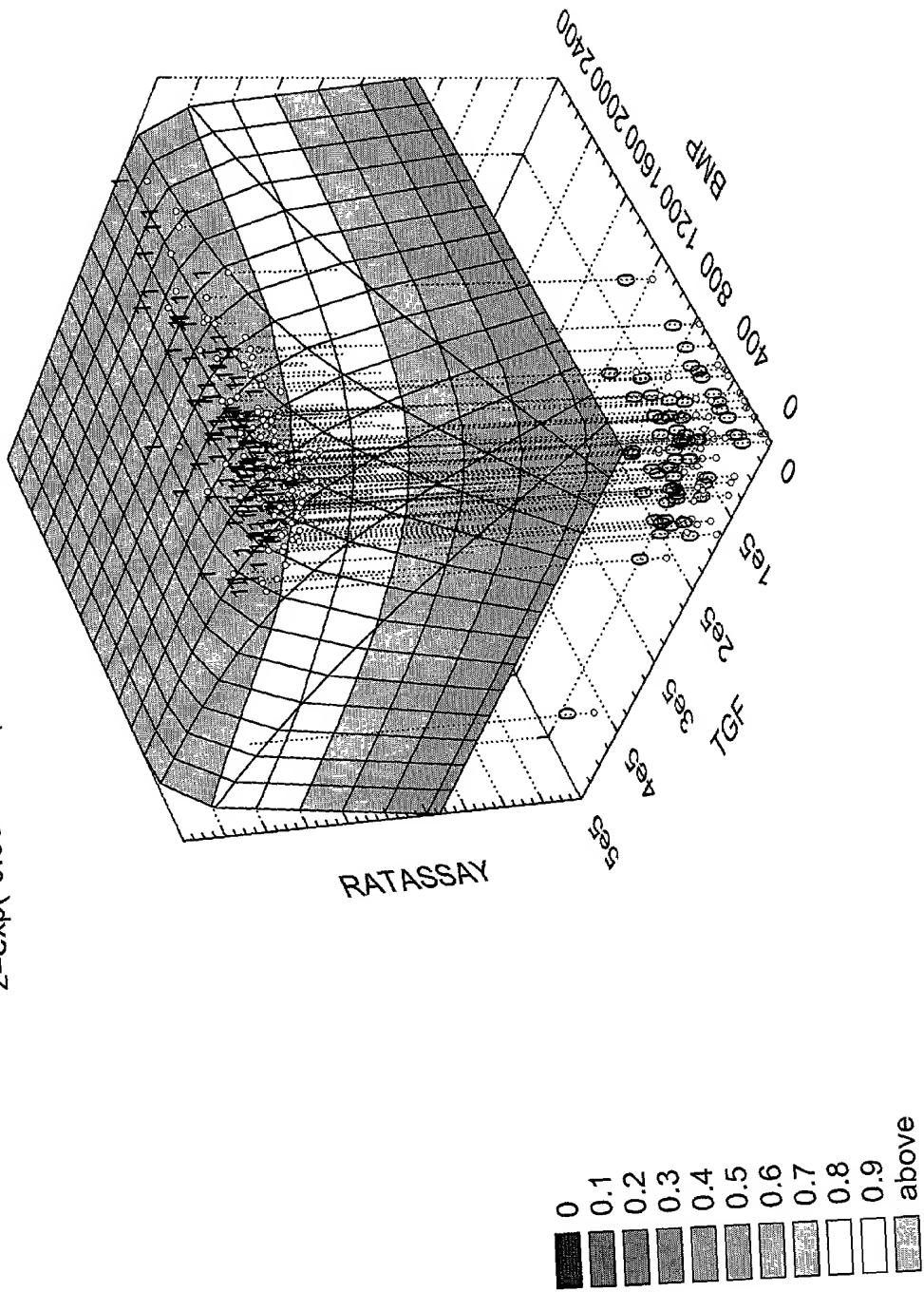


FIGURE 16

3D Contour Plot (Elisa.STA 10v\*194c)  

$$z = \exp(-0.535308 + (3.10276e-8)x^*y) / (1 + \exp(-0.535308 + (3.10276e-8)x^*y))$$

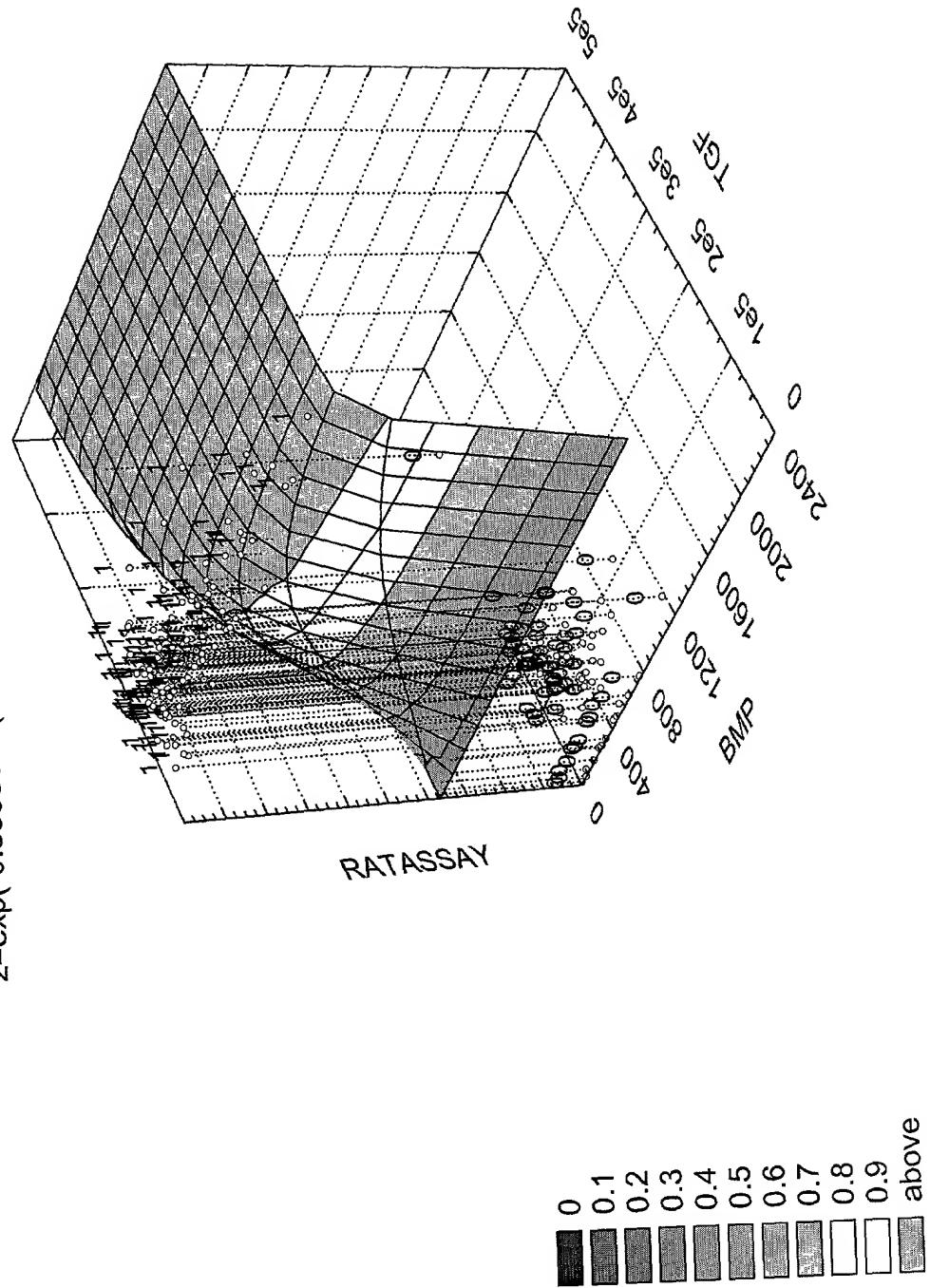


FIGURE 17

3D Contour Plot (Elisa.STA 10v\*194c)  
 $z = 1/(1 + \exp(-0.3123 - 0.0005835 \cdot x - 2.240E-06 \cdot y + 3.7290E-08 \cdot x^*y))$

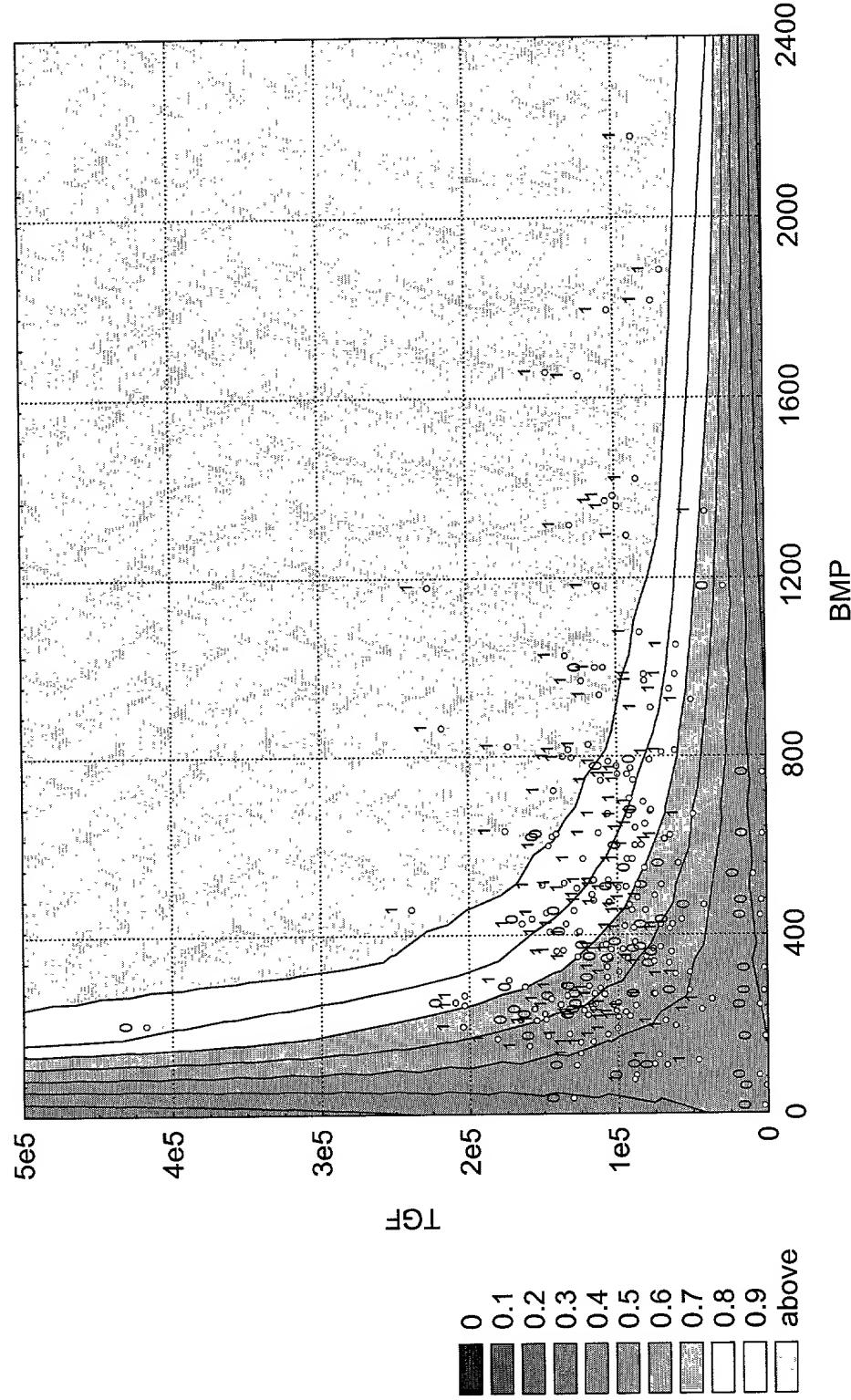


FIGURE 18

Model: Logistic regression (logit)  
 $y = \exp(-0.535308 + (3.10276 \times 10^{-8})x) / (1 + \exp(-0.535308 + (3.10276 \times 10^{-8})x))$

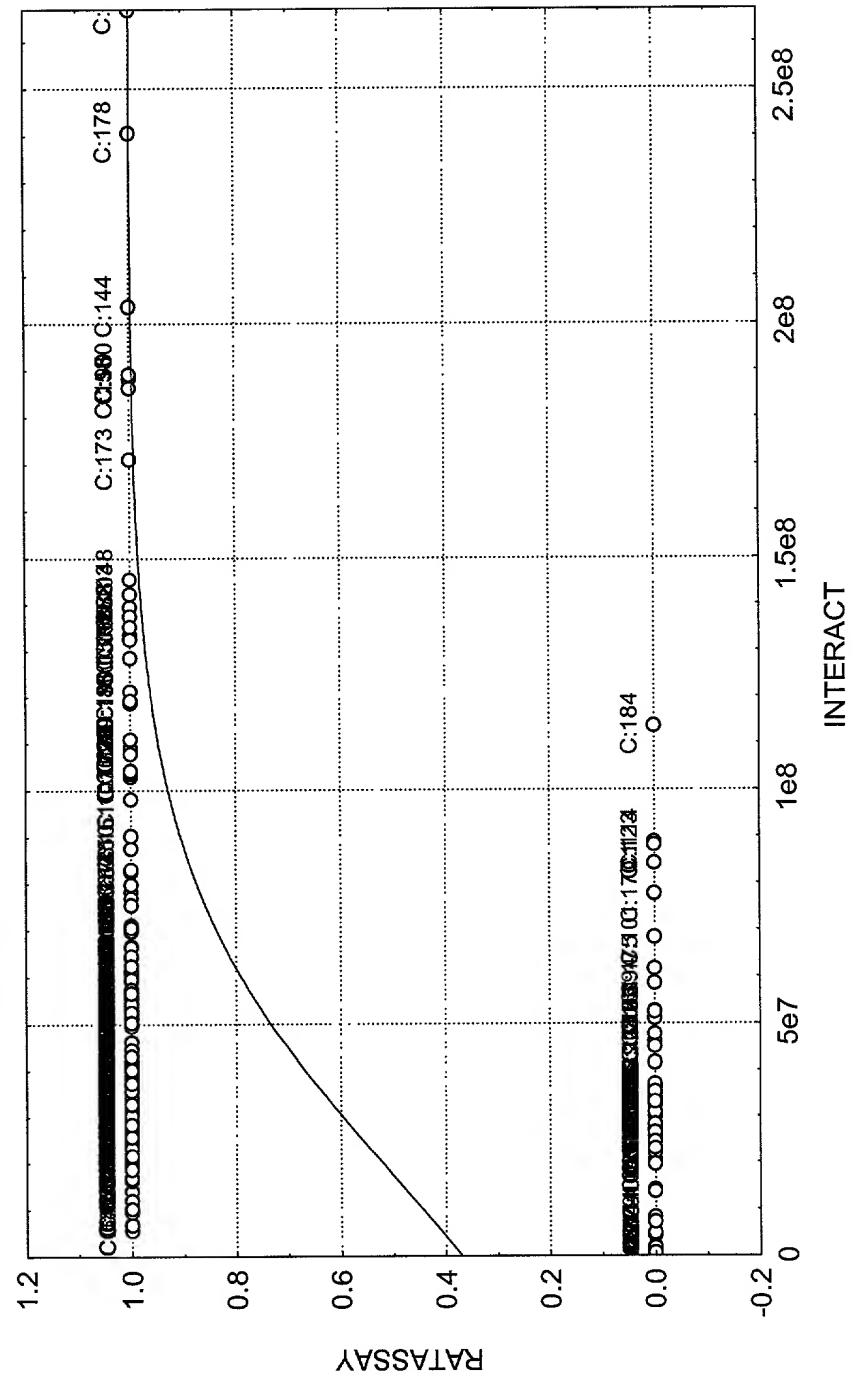


FIGURE 19